Amendments to the Claims

The following listing of claims will replace the listing of the claims which were submitted under PCT Article 19 in the international application.

Listing of Claims

1-118 (canceled)

119-138 (new):

119. A method for encoding a block of digital information in a sequence of blocks of digital information, comprising a step of ascertaining a degree of correlation of the block with a plurality of predecessor blocks of the sequence.

120. The method of claim 119, wherein ascertaining the degree of correlation comprises the steps of:

(a) determining residue energy on at least a portion of information from each of a chosen plurality of the predecessor blocks; and

(b) using at least a portion of the residue energy values obtained in step (a) in ascertaining the degree of correlation.

121. The method of claim 120, wherein at least one of the plurality of the predecessor blocks is chosen taking into account feedback from a decoder.

122. The method of claim 119, wherein ascertaining the degree of correlation further comprises

(a) in selecting predecessor blocks, using at least one of

(i) determining residue energy with respect to at least one of the predecessor blocks,

(ii) using transform domain values of residue energy information, and

(iii) determining residue energy on at least a portion of information from each of a chosen plurality of the predecessor blocks;

and

(b) generating motion vector information for at least a portion of the selected blocks.

123. The method of claim 122, where the motion vector information is represented by encoding with a codebook available at the encoder and at a prospective decoder.

124. A method for encoding a block of digital information, comprising the steps of

(a) identifying a target codeword that represents at least a portion of the digital information; and

(b) determining a hash value from the target codeword.

125. The method of claim 124, wherein the hash value is determined by using any combination of:

(a) a checksum on the target codeword,

(b) intra-information corresponding to a portion of the target codeword intra-coded by encoding with a codebook available at both the encoder and a prospective decoder,

(c) the most significant bit-plane for a portion of the target codeword, and

(d) an arithmetic code based on a Continuous Error Detection codeword.

126. The method of claim 124, for a prospective decoder to keep a table of most likely codewords that result in each hash value.

127. The method of claim 126, wherein the encoder has access to the table, for providing the decoder with a code to indicate values encoded.

128. The method of claim 124, wherein the hash value is for a concatenation of a plurality of blocks.

129. The method of claim 128, wherein the blocks are selected so that a hash value is determined for each row of blocks within a frame and for each column of blocks within a frame.

130. The method of claim 128, wherein consecutive blocks following a predetermined scan of video frame blocks are concatenated to generate a hash value for the plurality of blocks.

131. A method for encoding a block of digital information partitioned into sub-blocks, comprising at least one of the steps of:

(a) for each of at least a portion of the sub-blocks, identifying a target codeword that represents at least a portion of the corresponding sub-block of digital information;

(b) for each of at least a portion of the sub-blocks, concatenating target codewords into a further target codeword;

(c) for at least one of the sub-blocks, partitioning the target codeword into a plurality of target codewords;

(d) for each of at least a portion of the sub-blocks, determining degree of correlation of the target codeword with the predecessor codeword;

(e) for each of at least a portion of the sub-blocks, determining a plurality of codewords containing the target codeword;

(f) for each of at least a portion of the sub-blocks, determining a hash value from the target codeword;

(g) for each of at least a portion of the sub-blocks, for representing at least some of the values obtained in one of (d), (e) or (f), utilizing a format which comprises a plurality of fields wherein a target codeword represents at least a portion of the block, and wherein at least one field is selected from:

(i) a field including an encoded estimate of the degree of correlation between the block and a plurality of further blocks of digital information at a decoder,

(ii) a field including an encoded index of a set of a plurality of code words, wherein the set includes the target codeword and the value of the set, and

- 4 -

(iii) a field including an encoded hash value derived from the target codeword.

132. A method for transferring digital information, comprising a step of encoding by using at least one of:

(a) identifying a target codeword that represents at least a portion of the block of digital information,

(b) determining at least one of the degree of correlation of the block of digital information and the target codeword that represents the block with a plurality of blocks in the predecessor information,

(c) determining a set of codewords, wherein the set contains the target codeword,

(d) deriving a hash value from the target codeword, and

(e) for representing at least some of the values obtained in one of (b), (c) and (d), utilizing a format which comprises a plurality of fields wherein a target codeword represents at least a portion of the block and wherein at least one field is selected from:

(i) a field including an encoded estimate of the degree of correlation between the block and a plurality of further blocks of digital information at a decoder,

(ii) a field including an encoded index of a set of a plurality of code words, wherein the set includes the target codeword and the value of the set, and

(iii) a field including an encoded hash value derived from the target codeword;

and using a decoder which sends information to the encoder that can be used by the encoder.

133. The method of claim 132, wherein the information sent by the decoder is used by the encoder to ascertain a degree of correlation of the block with a plurality of predecessor blocks.

134. The method of claim 132, wherein the information sent by the decoder is used by the encoder to ascertain a degree of correlation of the block with a plurality of predecessor blocks, and

wherein the information comprises motion vector information inferred by the decoder.

135. The method of claim 132, wherein the information comprises state information about the decoder.

136. The method of claim 135, wherein the state information comprises an estimate of predecessor information available at the decoder.

137. A method for encoding a block of digital video information from a plurality of sources, comprising generating a plurality of encodings for each source with/without collaboration between sources using at least one of:

(a) identifying a target codeword that represents at least a portion of the block of digital information,

(b) determining at least one of the degree of correlation of the block of digital information and the target codeword that represents the block with a plurality of blocks in the predecessor information,

(c) determining a set of codewords, wherein the set contains the target codeword;

(d) deriving a hash value from the target codeword, and

(e) for representing at least some of the values obtained in one of (b), (c) and (d), utilizing a format which comprises a plurality of fields wherein a target codeword represents at least a portion of the block and wherein at least one field is selected from:

(i) a field including an encoded estimate of the degree of correlation between the block and a plurality of further blocks of digital information at a decoder,

(ii) a field including an encoded index of a set of a plurality of code words, wherein the set includes the target codeword and the value of the set, and

(iii) a field including an encoded hash value derived from the target codeword.

138. The method of claim 137, wherein encodings from a plurality of sources are used by the decoder to generate a representation of digital video information at a higher resolution than from individual sources.